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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/905,308	07/13/2001	Robert S. Blackmore	POU920000146US1	6080
46369	7590	10/12/2006	EXAMINER	
HESLIN ROTHENBERG FARLEY & MESITI P.C.			JEAN GILLES, JUDE	
5 COLUMBIA CIRCLE			ART UNIT	
ALBANY, NY 12203			PAPER NUMBER	
			2143	

DATE MAILED: 10/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/905,308

Applicant(s)

BLACKMORE ET AL.

Examiner

Jude J. Jean-Gilles

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☒ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This Action is in regards to the Reply received on 08/07/2006.

#### ***Response to Amendment***

1. This office action is responsive to communication filed on 08/07/2006. Claims 1, 2, 3, 4, and 7 have been amended. Claims 1-10 are pending. Claims 1-10 are pending. Claims 1-10 represent a method and apparatus for a "Recovery Support for Reliable Messaging."

#### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1, 4, and 7 have been carefully considered, but are not deemed fully persuasive. Applicant's arguments are deemed moot in view of the existing ground of rejection as explained here below, necessitated by applicant's amendment to the claims.

The dependent claims stand rejected as articulated in the Previous Office Action and all objections not addressed in Applicant's response are herein reiterated.

In response to Applicant's arguments, 37 CFR § 1.11(c) requires applicant to "clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. He or she must show the amendments avoid such references or objections."

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaman et al (Varman) U.S. 6,011,780 in view of Callon U.S. patent No. 7,035,202 B2.

**Regarding claim 1:** Vaman discloses the invention substantially as claimed.

Vaman et al teach a method for providing reliable communication in a system of directly connected an interconnected network of data processing nodes (*figs. 1 and 2; column 7, lines 12-15*), said method comprising:

detecting a failure of a node or a failure of connectivity to the node (failed node) using a heartbeat signal provided over a separate path to indicate to one or more other nodes in said system the failure (*column 11, lines 11-28*);

establishing an instance identifier associated with said failure (*column 12, lines 9-17*), said instance identifier indicating that communications with said failed node; and

sending notification of said failure (*column 7, lines 39-42*), including said instance identifier, to other nodes having existing communication links with said at least one failed node (*column 12, lines 9-25*); However, Vaman et al are silent on how to terminate, at said one or more notified nodes, pending communications that involve said failed node, said termination being carried out in response to said notification; and does not show the details of an instance identifier.

In the same field of endeavor, Callon discloses "... *Unlike a conventional update message that may simply indicate destination 12B is unreachable, the link failure message uniquely identifies link 8 as a failed link. Once router 4J receives the link failure message, router 4J does not attempt to use routes that include the failed link 8 during the "valid period" for the link failure information. Furthermore, router 4J ignores any update messages that advertise an available route that includes failed link 8. Thus, the link failure information describes the root of the problem, the failed link, and not just symptoms of the problem, invalid paths. Once a router receives and forwards the link failure message, the router does not re-forward, the message, or any update messages that lists link 8 to its neighbors, thereby reducing the number of update messages that may otherwise flood network 10... receiving a message including link failure information identifying a failed link within a computer network, wherein the message includes an origin identifier that identifies an originating network device that detected the link failure and a timestamp indicating when the failed link was detected, wherein the message identifies at least one route having at least three nodes including a source node, a destination node and at least one intermediate nodes and wherein the failed link comprises a link coupling two of the nodes along the route; accessing a data store to determine whether link failure information identifying the failed link, the originating network device and the timestamp has previously been received ...*" (See Callon; column 5, lines 48-50; column 12, lines 54-67; column 10, lines 45-50).

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Callon's teachings of detecting and terminating a transmission line failure with the teachings of Vaman, for the purpose of improving the ability of a network *"to monitor node movement and take management actions to prevent disruption"* as stated by Vaman in lines 38-43 of column 8. Callon also provides motivation to combine by stating this method generates link\_failure information to identify the specific link that has failed. By this rationale, **claim 1** is rejected.

Regarding **claim 2**: The combination Vaman- Callon teaches the method of claim 1 further including the step of detecting that said at least one failed node is no longer in a failed state and resuming communications with that node using an incremented value for said instance identifier. [see *Vaman, column 11, lines 47-53, column 16, lines 15-16, 38, and 47*]. By this rationale **claim 2** is rejected.

Regarding **claim 3**: The combination Vaman- Callon teaches the method of claim 2 further including the step of resuming communications with said one or more other nodes using said incremented instance identifier [see *Vaman, column 11, lines 47-53, column 16, lines 15-16, 38, and 47*]. By this rationale **claim 3** is rejected.

**Regarding claim 4**: The combination Vaman- Callon teaches the invention substantially as claimed. Vaman et al teach a data processing system comprising:

a plurality of interconnected data processing nodes (Varman; *column 7, lines 12-15; figs. 1 and 2*);

heartbeat signal generators within each said node for providing a signal over a separate path to one or more other nodes of said nodes indicative of node failure status (Varman; *column 11, lines 11-28*);

heartbeat signal detectors within said nodes for indicating that a certain node has failed (failed node) (Varman; *column 12, lines 9-17*);

Vaman et al further teach a first program within said one or more other nodes for establishing an instance identifier associated with each node failure and for transmitting notification of said failure and said instance identifier to non failed nodes (Varman; *column 9, lines 24-63; column 16, appendix A*); said instance identifier indicating that communications of the failed node are to be discarded (See Callon; *column 5, lines 48-50; column 12, lines 54-67*).; and

a second program within said nodes for terminating, at said notified nodes, pending communication that involve said at least one failed node, said termination being carried out in response to said notification (Varman; *column 12, lines 15-57*), (See Callon; *column 5, lines 48-67; column 12, lines 54-67*).

Regarding **claim 5**: The combination Vaman- Callon teaches the data processing system of claim 4 in which said heartbeat signal detectors also provide an indication that a failed node has returned to functioning status. [see *Vaman, column 9, lines 37-54*]. By this rationale **claim 5** is rejected.

Regarding **claim 6**: The combination Vaman- Callon teaches the data processing system of claim 5 further comprising a third program within said nodes which resumes communication with nodes that have returned to functioning status, said

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communication including transmission of a new instance identifier. [see *Vaman*, column 11, lines 21-28]. By this rationale **claim 6** is rejected.

**Regarding claim 7:** The combination *Vaman*- *Callon* teaches a computer program product comprising a computer readable medium (see *Varman*; *fig. 1*, *intelligent controller, ATM switch*) on which is stored program means (see *Varman*; column 8, lines 13-18) for:

detecting a failure of a node or a failure of connectivity of the node (failed node), using a heartbeat signal provided over a separate path to indicate to one or more other nodes the failure (see *Varman*; column 11, lines 11-28);

establishing an instance identifier associated with said failure (see *Varman*; column 12, lines 9-17); said instance identifier indicating that communications of the failed node are to be discarded

sending notification of said failure, including said instance identifier, to said one or more other nodes having existing communication with said at least one failed node (see *Varman*; column 12, lines 9-25); [see *fig. 2A*; column 6, lines 8-65];

terminating, at said notified nodes, pending communications that involve said at least one failed node, said termination being carried out in response to said notification (See *Callon*; column 5, lines 48-67; column 12, lines 30-67).

**Regarding claim 8:** The combination *Vaman*- *Callon* teaches the method of claim 1, wherein said instance identifier provides an indication that a failure event has occurred (See *Callon*; column 5, lines 48-67; column 12, lines 30-67).



**Regarding claim 9:** The combination Vaman- Callon teaches the data processing system of claim 4, wherein said instance identifier provides an indication that a failure event has occurred (See Callon; column 5, lines 48-67; column 12, lines 30-67).

**Regarding claim 10:** The combination Vaman- Callon teaches the computer program product of claim 7, wherein said instance identifier provides an indication that a failure event has occurred (See Callon; column 5, lines 48-67; column 12, lines 30-67).

### ***Response to Arguments***

5. Applicant's Request for Reconsideration filed on 08/07/2006 has been carefully considered but is not deemed fully persuasive. However, because there exists the likelihood of future presentation of this argument, the Examiner thinks that it is prudent to address Applicants' main points of contention.

A. Applicants submit that each of the references, and therefore, the Combination of the references, fails to describe, teach or suggest an instance identifier, as claimed by applicants. Applicants' instance identifier, as claimed, indicates that communications of the failed node (i.e., the failed node or node with failed connectivity) are to be discarded. This is not described, taught or suggested in Vaman or Moy. It is explicitly stated in the Office Action that Vaman does not teach or suggest the details of an instance identifier. Therefore, Moy is relied upon. However, applicants respectfully submit that Moy does not overcome the deficiencies of Vaman.

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6. New patent of Callon discloses the instance identifier that carries a message that indicates that communications of the failed node. See rejection 1, 4, and 7.

Furthermore, the combination Vaman- Callon teaches all the limitations of the claimed invention as stated above in the 103(a) rejections.

Examiner notes with delight that no new matter has been added and that the new claims are supported by the application as filed. However, applicant has failed in presenting claims and drawings that delineate the contours of this invention as compared to the cited prior art. Applicant has failed to clearly point out patentable novelty in view of the state of the art disclosed by the references cited that would overcome the 103(a) rejections applied against the claims, the rejection is therefore sustained.

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from examiner should be directed to Jude Jean-Gilles whose telephone number is (571) 272-3914. The examiner can normally be reached on Monday-Thursday and every other Friday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley, can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-9000.

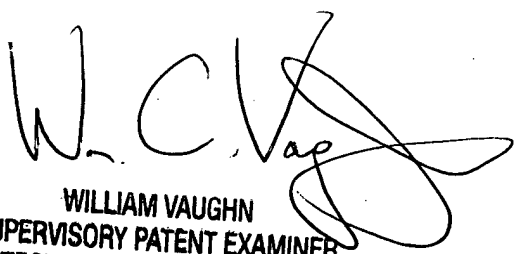
Jude Jean-Gilles

Patent Examiner

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JJG 

October 06, 2006

  
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